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ABSTRACT

This interim report evaluates the achievement of sever objectives in the Francis R. Howell School District Innovative Program. The objectives of the program were teacher improvement in the areas of: (a) effective questioning, (b) the writing of behavioral objectives, (c) diagnosis and evaluation, (d) individualized instruction, (e) science processes, (f) social studies inquiry, and (g) student behavioral modification. Workshops were held on individualized instruction, behavioral objectives, and science and social studies teaching. Pre- and posttests administered for these workshops were the basis of their evaluation. The other objectives were not the subject of workshops, and their evaluation is based on subjective evidence. According to the objective and subjective data analyzed, all objectives were partially or totally achieved. (HMD)

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INTERIM EVALUATION REPORT 1972-73

EVALUATION OF
FRANCIS HOWELL R-III SCHOOL DISTRICT
TITLE III, ELEMENTARY AND
SECONDARY EDUCATION ACT
INNOVATIVE PROGRAM

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Submitted by

Francis Howell School District, E.S.E.A. Staff

September, 1972

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FRANCIS HOWELL R-III SCHOOLS
TITLE III, ESEA INSERVICE TEACHER TRAINING
PROGRAM EVALUATION

INTRODUCTION

The 1971-72 ESEA Title III program was evaluated by an outside agency. Their computerized analysis and subsequent interpretation of the raw evaluation data which was submitted by the local project was infinitely more sophisticated than a local evaluation effort could have been.

There are several drawbacks, however, to contracting with an outside agency for project evaluation. Last year the outside agency conducting our evaluation lost some of the raw data which we had submitted to them. In addition they were dilatory in submitting the evaluation report to us, thereby, causing us to be late in sending it to the State Department of Education. The cost of employing an outside agency is also a factor. The lack of communications between the local agency and the contracted agency is a potential source of misunderstanding and confusion.

It is the opinion of the director of the Francis Howell ESEA Title III project that there are some advantages to an internal evaluation:

A. Direct control over the entire evaluation effort.

B. Greatly reduced evaluation cost.

C. Improved communications between those responsible for the evaluation effort.

This evaluation, although it may not possess the sophistication of the 1971-72 evaluation, will reflect the efforts of the Francis Howell

Title III staff to present an objective look at the results of the 1972-73 project. We have attempted to adhere as closely as possible to the evaluation design presented in the continuation application for 1972-73. Where it was impossible for one reason or another to obtain objective evaluation data, an explanation, and perhaps a subjective comment or two, has been substituted.

Chapter I

GENERAL EVALUATION DESIGN

The evaluation consisted primarily of a comparison of teachers' terminal behavior with the standards set forth in the objectives. Post-tests were used as the primary measurement technique to determine achievement of the stated objectives, which specified the desired terminal behavior. Pre-tests were also used in some workshops to help establish the baseline data needed for comparisons and determination of changes in teacher behaviors resulting from the project.

In the "Individualized Instruction" workshop, teachers were asked to submit a plan for individualizing instruction in one subject area. Observations in the teacher's classroom were made to determine the degree of correlation between the proposed plan and the actual teaching method and to rate the classroom using the Individualized Instruction Observation Check List.

COLLECTION OF THE DATA

The data contained in this evaluation study was collected from pre and post tests, teacher prepared instructional material and observation check lists. The pre-tests were administered just previous to participation in a workshop and post-tests were administered at the conclusion of each workshop. The classroom observations were made periodically throughout the school year. The analysis of teacher prepared curriculum guides was done in July of 1973.

ANALYSIS OF DATA

The data obtained from the evaluation effort is presented in both tabular and graphical form. The mean differences between pre and post scores are used as one indication of project success. Another indication of success is the percentage of teachers who, as a result of workshop activities, changed their behavior sufficiently to meet the criteria of success stated in the continuation application.

THE INSTRUMENTS

In addition to the pre and post tests, three instruments were developed to use in evaluating the data:

1. Individualized instruction observation check list.
2. Social studies curriculum guide check list.
3. Science curriculum guide check list.

Copies of these instruments are contained in the appendix

Chapter II

ANALYSIS OF THE DATA

I. BEHAVIORAL OBJECTIVES

Behavioral objectives were taught both in context and as a separate entity during the 1972-73 project year. They were taught in context in Individualized Instruction, learning activity packets, social studies, and science workshops. They were taught separately in a workshop entitled Behavioral Objectives - Their use and misuse. Ten teachers who were involved in one or more of these workshops were selected randomly to write a list of ten behavioral objectives prior to participation in a workshop and to write another list of ten behavioral objectives at the conclusion of the workshop or workshops, if they were enrolled in more than one. The first list of objectives were used as baseline data for determining the degree of change in the participating teachers' skill in writing behavioral objectives. The three criteria used in evaluating the two sets of behavioral objectives are:

1. The student behavior must be observable.
2. The conditions under which the performance or product is to occur must be stated.
3. The criterion or standard of performance must be stated.

Using these three criteria as a standard, a perfect score on each behavioral objective would be three. A total of thirty points would be possible for each set of ten behavioral objectives. The scores, both pre and post, for each individual teacher and for each group of teachers are presented in the table on the following page.

TABLE I

Pre and Post Inservice Training Scores
Teacher Written Behavioral Objectives

Teacher Number	Pre Score	Pre %	Post Score	Post %	Raw Score Gain	Gain %
1	10	33.3	30	100.0	20	66.7
2	9	30.0	30	100.0	21	70.0
3	7	23.3	30	100.0	23	76.7
4	3	10.0	29	96.6	26	86.6
5	6	20.0	29	96.6	23	76.6
6	5	16.6	30	100.0	25	83.4
7	7	23.3	29	96.6	22	73.3
8	6	20.0	30	100.0	24	80.0
9	2	6.6	29	96.6	27	90.0
10	8	26.6	20	66.6	12	40.0
Mean Scores	6.30	20.97	28.6	95.33	22.3	74.33

II. INDIVIDUALIZED INSTRUCTION

A total of twenty two teachers participated in the Individualized Instruction workshop during 1972-73. Of this number eight were first time participants and fourteen were involved in the workshop for the second year.

An observation check list was developed by Dr. Jane Wilhour, the project director, and workshop participants. This check list was then used to determine the extent to which the workshop participants were effectively implementing an individualized program in at least one subject area in their classroom. A written implementation plan was also collected from each workshop participant and has been included in this evaluation report. The observation check list contains thirty three separate criteria which are considered to be descriptive of a thoroughly individualized instructional program. This evaluation recognizes that there are degrees of individualization in every classroom and most would probably meet some of the criteria

whereas only a few would meet them all.

From the list of thirty three criteria contained in the observation check sheet, the evaluators set an arbitrary standard for establishing the level of acceptance for an individualized classroom. Those teachers who were second year participants in the workshop were expected to meet 70% of the criteria. The level of acceptance was set at 50% for first year workshop participants.

The results of the observations made in each teacher's classroom are presented in Tables II and III.

TABLE II
Second Year Participants
Teacher Scores on the Individualized Instruction Observation Check List

Teacher Number	Section I	II	III	IV	V	VI	VII	Total Points	% of Total Poss.	Criteria Met
1	5	4	3	5	2	2	3	24	72%	yes
2	5	4	3	6	0	2	4	24	72%	yes
3	5	4	2	6	4	3	4	28	84%	yes
4	4	4	2	6	1	5	3	25	73%	yes
5	5	4	3	5	4	5	4	30	90%	yes
6	4	4	2	3	3	5	4	25	73%	yes
7	5	4	2	5	4	3	3	26	78%	yes
8	3	2	4	5	4	5	4	27	81%	yes
9	5	3	4	4	4	6	4	30	90%	yes
10	4	4	4	6	4	4	4	30	90%	yes
11	5	4	4	6	4	6	2	31	93%	yes
12	3	3	4	6	1	4	4	25	73%	yes
13	4	3	3	3	2	6	4	25	73%	yes
14	3	3	3	4	4	6	2	25	73%	yes
Mean raw data	4.2	3.5	3.0	5.0	2.0	4.2	3.3	26.7		
Scores per cent	85%	89%	76%	84%	73%	73%	83%	81%		

TABLE III
First Year Participants

Teacher Scores on the Individualized Instruction Observation Check List

Teacher Number	Section							Total Points	% of Total Poss.	Criteria Met
	I	II	III	IV	V	VI	VII			
1	4	4	2	5	1	3	4	23	69%	yes
2	5	3	3	2	3	1	3	20	63%	yes
3	5	4	2	5	0	2	4	22	66%	yes
4	5	3	0	2	0	0	2	12	31%	no
5	4	4	2	4	0	3	2	19	57%	yes
6	3	3	1	5	0	1	4	17	51%	yes
7	3	2	2	1	0	6	4	18	54%	yes
8	3	4	2	3	1	5	2	20	66%	yes
Mean raw data	4.0	3.3	1.7	3.3	.6	2.6	3.1	18.8		
Scores per cent	80%	81%	43%	56%	15%	43%	78%	57%		

III. SCIENCE PROCESSES

The evaluation conducted in the area of science processes differs substantially from the original evaluation design contained in the continuation application. This became necessary as a result of the unavailibility of Dr. David Butts, the science consultant who was to provide the workshop expertise, test forms, and raw data analysis. When it became evident that Dr. Butts was not going to be able to spend the amount of time required to accomplish these responsibilities, a different approach was followed.

It was felt by the secondary science department that their curriculum lacked continuity between different grade levels; did not provide enough differentiation of instruction to accomodate all the students enrolled in the science program; did not place sufficient emphasis upon the processes of science and finally, did not utilize all available instructional resources.

Science workshops which provided teachers with the knowledge necessary to improve their curriculum were offered. These workshops utilized area consultants who were recognized leaders in their particular fields of interest. The culminating activity in each workshop was the development of a curriculum guide. These guides were then evaluated by comparing them to an evaluation form developed expressly for this purpose. The data from the evaluation is presented in the table below.

TABLE IV
Scores on Science Curriculum Guide Check List

Grade Level	Section				Total Points Scored	% of Total Points Possible (100)
	I	II	III	IV		
Seventh	20	15	25	0	60	60%
Eighth	25	25	20	5	75	75%
Nine-Twelve	25	25	25	5	80	80%
Mean Scores	23	22	23	3	72	72%
Total Points Possible	25	25	25	25	100	100%

Table V contains supportive data for objective V - Science Processes. The objective stated that 25 of 35 participating teachers would use one of three "process approach" science units in their classroom instruction: AAAS, SCIS, or ESS

TABLE V
Participants Using Process Approach Science Programs

No. of Participants	Participants Using Prior to Workshop		Participants Using After Workshop		Criteria Met
	No.	%	No.	%	
49	6	12%	37	73%	Yes

IV. SOCIAL STUDIES INQUIRY

The original evaluation design was modified somewhat so that a more accurate evaluation of the 1972-73 workshop activities would be possible. Workshop participants developed detailed curriculum guides which incorporated all the objectives listed in Section VI of Project Activities in the 1972-73 Continuation Application. The curriculum guides were then evaluated using a specially prepared curriculum guide check list. The results of this evaluation are presented below.

TABLE VI
Scores on Social Studies Curriculum Guide Check List

Guide Grade Level	Section				Total Points Scored	% of Total Points Possible	Criteria Met (Yes-No)
	I	II	III	IV			
Seventh	30	20	30	20	100	100%	Yes
Eighth	30	20	30	15	95	95%	Yes
Ninth	15	20	25	20	80	80%	Yes
Mean Scores	25	20	28	18	91	91%	Yes
Total Points Possible	30	20	30	20	100	100%	

Chapter III

FINDINGS AND CONCLUSIONS

The 1972-73 Title III project had seven major objectives which were used as a focus for workshop activities. All of these objectives were met to some degree. Separate workshops to accomplish the objectives of Effective Questioning, Diagnosis and Evaluation and Student Behavior Modification were not conducted, due either to a lack of teacher interest, or because it was not appropriate. The objectives were accomplished in part, however, through the activities in the Individualized Instruction, Behavioral Objectives, Science and Social Studies workshops.

FINDINGS

There were seven major objectives which the project hoped to accomplish. The findings associated with each of these objectives are presented below.

1. Teacher skill in writing behavioral objectives increased substantially as a result of their workshop experiences.

2. Participating teachers gained sufficient knowledge and confidence to individualize at least one subject in their classroom.

3. As a result of their experiences in one or more workshops, teachers demonstrated sufficient awareness of, and competence in, diagnosing and evaluating individual learner needs.

4. The participants in the science workshops demonstrated competency in providing instruction in science process skills.

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5. The inquiry/concept/value approach to the teaching of social studies was adopted by the entire secondary social studies department. Their skill in recognizing and utilizing this approach was evident from an analysis of the curriculum guides which were developed in the workshop.

6. Effective Questioning was not taught nor evaluated as a separate objective. An explanation of the progress toward the accomplishment of this objective will be given in the section entitled "conclusion".

7. Student Behavior Modification was not measured because existing circumstances precluded the establishment of a statistically valid testing situation.

CONCLUSIONS

It is imperative to the proper interpretation of this evaluation data that the reader understand the conditions under which the raw data was collected and analyzed.

This evaluation did not contain a sophisticated evaluation design which attempted to control and manipulate all possible intervening variables. The raw data has been analyzed using pre and post tests, check lists and observation forms. A comparison was made between the raw data and the project objectives and results have been reported in terms of success or lack of success in meeting the standards stated in each objective.

OBJECTIVE I - EFFECTIVE QUESTIONING

Separate workshops in effective questioning were not offered in 1972-73. A workshop was discussed with teachers but they felt the primary objective of decreasing "teacher talk" could be satisfactorily accomplished through the activities contained in other workshops.

The objective stated that 50 of 70 (71%) participating teachers would decrease by 25% the amount of time spent in teacher talk.

There are several indications that progress toward meeting this objective was made. Sections I, IV and VII on the Individualized Instruction Observation Check List (IIOC) encompasses teacher behavior which, if practiced in the classroom, would lead to a decrease in "teacher talk". Tables II and III show that all participating teachers in the Individualized Instruction workshop scored above 70% in these three categories. Sections I and III

on the Science Curriculum Guide Check List (Table IV) also relates to teacher behavior which would decrease "teacher talk". The mean per cent in each of these categories is above 75%.

Copies of both the IIOC and the Science Curriculum Guide Check List can be found in the Appendix.

OBJECTIVE II - BEHAVIORAL OBJECTIVES

The workshops which provided participants with an opportunity to write objectives in behavioral terms were successful in increasing teacher skill in this area as evidenced by the data recorded in Table I.

OBJECTIVE III - DIAGNOSIS & EVALUATION

It was assumed that as a result of the workshops offered during 1972-73 that participants would become more skillful in diagnosing individual learner needs.

There was no direct measurement of the progress made toward the accomplishment of this objective. However, an analysis of Section II of the IIOC (tables II & III) indicates that teachers were including diagnosis and evaluation as part of their planning for individualized instruction.

Additional data to support the accomplishment of this objective is derived from the fact that all thirty teachers enrolled in the Croft Reading workshop were required, after sufficient training, to administer and score the Cooper-McGuire Diagnostic Reading Test. Based upon the results of this test, teachers then prescribed individual reading programs for each student.

OBJECTIVE IV - INDIVIDUALIZED INSTRUCTION

Tables II and III lend supportive data to the conclusion that objective IV - Individualized Instruction was met.

Twenty-one out of twenty-two participating teachers satisfactorily implemented an individualized instructional program in at least one subject area. This exceeds the standard set forth in the objective.

OBJECTIVE V - SCIENCES PROCESSES

Tables IV and V indicate that: (1) seventy three per cent of participating teachers are using a process approach in their science instruction and (2) provision has been made for the teaching of science processes in the new secondary curriculum guides.

A competency measure was not given to participating teachers, therefore, their competency in teaching the science processes is merely an assumption.

OBJECTIVE VI - SOCIAL STUDIES INQUIRY

Section III of Table VI indicates that this objective was at least partially met. Teachers have made provisions in the newly developed curriculum guides for student oriented, inquiry instruction. Further, a check of the curriculum guides reveals that materials and activities listed are clearly inquiry/concept/value oriented.

OBJECTIVE VII - STUDENT BEHAVIOR MODIFICATION

There is no supportive data to indicate that student behavior was modified as a result of the in-service activities. As explained earlier in this evaluation report, this was not measured because the existing circumstances did not permit a valid testing situation. The data from tables II, III. IV, V and VI give credence to the assumption, however, that there was a degree of student behavior modification as a result of the modified teacher behaviors.

SUMMARY

The data contained in this evaluation report indicate that progress was made in the accomplishment of each objective. There was, however, a lack of objective data to substantiate the contention that all objectives were met.

Objectives II - Behavioral Objectives; IV - Individualized Instruction; V Science Processes and VI - Social Studies Inquiry were all supported by objective data which revealed either total or partial goal achievement. Objectives I - Effective Questioning; III - Diagnosis & Evaluation, and; VII Student Behavior Modification were not supported by a direct measurement. A subjective evaluation, arrived at through an analysis of the evaluation data, conversations with workshop participants, a study of teacher prepared materials and classroom observations, indicates that these objectives were also accomplished wholly or in part.

APPENDIX

Francis Howell School District - ESEA Title III

Individualized Instruction Observation Checklist

I. Differentiated Instruction ..... ☐
- A. Flexible time schedule
- B. Subgroup activities (flexible grouping)
- C. Assignments of varying difficulty
- D. Assignments of varying length
- E. Student assignments correlated with ability

II. Diagnosis ..... ☐
- A. Arrangements for periodic diagnosis
- B. Provide for both group and individual diagnosis
- C. Utilize both teacher and commercially prepared tests
- D. Utilize diagnostic information in planning instructional activities

III. Evaluation ..... ☐
- A. Clearly stated objectives for each unit
- B. Student involvement in evaluation process
- C. Periodic "informal" evaluation
- D. Planned comprehensive evaluation

IV. Instructional Activities ..... ☐
- A. Activities planned to meet individual needs
- B. Activities structured in small gradations
- C. Activities are sequential
- D. Positive reinforcement
- E. Provision for individual student interests (Learning Centers, etc.)
- F. Immediate feedback to students on their progress in each instructional activity

V. Teacher-Pupil Conferences ..... ☐
- A. Students help plan individual goals
- B. Students help plan learning activities
- C. Students assist in evaluation of individual achievement
- D. Teacher has definite schedule for teacher-pupil conferences

VI. Record Keeping ..... ☐
- A. Pupil kept records
  1. Records are simple and easy to understand
  2. Student feels responsibility for keeping records accurate and current
- B. Teacher kept records
  1. Individual progress records
  2. Cumulative records
  3. Subject matter profile records
  4. Class profile sheet

VII. Multimedia ..... ☐
- A. Availibility of audio visual equipment
- B. Utilization of audio visual equipment
- C. Skills presented through a variety of instructional materials (textbook, loops, films, etc.)
- D. Media method correlated with student need and ability

SCIENCE CURRICULUM GUIDE CHECK LIST

I. Differentiated Instruction
   - A. Assignments vary in length
   - B. Assignments vary in difficulty
   - C. Utilization of special projects
   - D. Instruction and activities designed for small as well as large groups
   - E. Flexible time arrangement for each study unit

II. Multimedia
   - A. Availibility of equipment listed in guide
   - B. Opportunity for utilization of available equipment
   - C. Student use of multi-media material
   - D. Organization and listing of all necessary laboratory material
   - E. Laboratory materials are practical for the activities

III. Instructional Activities
   - A. Laboratory activities are student oriented
   - B. Activities follow a sequential pattern
   - C. Lab work correlated with material covered in lecture
   - D. Detailed laboratory instructions for individual work
   - E. Provisions for individual student interest
   - F. Adequate provisions for learning science process skills

IV. Evaluation
   - A. Clear objectives, overall and for each unit
   - B. Frequent opportunity for evaluation
   - C. Sample test questions in each unit

SOCIAL STUDIES CURRICULUM GUIDE CHECK LIST

I. Differentiated Instruction
   - A. Assignments vary in length
   - B. Assignments vary in difficulty
   - C. Provision for special projects
   - D. Provision for individual student interest
   - E. Instruction and activities designed for small as well as large groups
   - F. Flexible time arrangement for each study unit

II. Multimedia
   - A. Availibility of equipment listed in guide
   - B. Student use of multi-media material
   - C. Media used is practical for the skill or concept being learned
   - D. Skills or concepts are presented through a variety of instructional media (textbooks, loops, films, etc.)

III. Instructional Activities
   - A. Activities follow a sequential pattern
   - B. Activities are student oriented
   - C. Interdisciplinary approach is used in the presentation of concepts and skills
   - D. Concepts are arrived at through student inquiry
   - E. Student inquiry is guided and directed
   - F. Provision for individual interests (Learning Centers, etc.)

IV. Evaluation
   - A. Clear objectives, overall and for each unit
   - B. Frequent opportunity for evaluation
   - C. Student knowledge of evaluation results
   - D. Sample test questions contained in units